0) 0107



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OIPE

RAW SEQUENCE LISTING

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DATE: 01/28/2002

PATENT APPLICATION: US/09/844,268

TIME: 11:28:19

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1 <110> APPLICANT: BOSWORTH, BRAD
         VOGELI, PETER
 2
 3 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS TO IDENTIFY SWINE GENETICALLY
         RESISTANT TO F18 E. COLI ASSOCIATED DISEASES
 5 <130> FILE REFERENCE: 21419/90368
 6 <140> CURRENT APPLICATION NUMBER: 09/844,268
 7 <141> CURRENT FILING DATE: 2001-04-27
 8 <150> PRIOR APPLICATION NUMBER: 09/443,766
 9 <151> PRIOR FILING DATE: 1999-11-19
                                                          ENTERED
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13 <170> SOFTWARE: PatentIn Ver. 2.0
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| 124 | | 1 5 10 | | | | | | | | | | | | | | | | |
| 125 | | cta | gtc | tgt | gtt | tta | gca | gca | att | ttc | ttc | ctg | aac | gtc | tat | caa | gac | 98 |
| 126 | | | | | | | | | Ile | | | | | | | | | |
| 127 | | 15 | | _ | | | 20 | | | | | 25 | | | _ | | 30 | |
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| 129 | | | | | | | | | Leu | | | | | | | | | |
| 130 | | | | - | | 35 | | - | | | 40 | | - | | - | 45 | | |
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| 132 | | | | | | | | | Ile | | | | | | | | | |
| 133 | | | | | 50 | | | | | 55 | - | | | - | 60 | | | |
| 134 | | cac | ccc | aac | qcc | tcc | gat | tcc | tgt | ccc | aaq | cat | cct | qcc | tcc | ttt | tcc | 242 |
| 135 | | | | | | | | | Cys | | | | | | | | | |
| 136 | | | | 65 | | | - | | 70 | | - | | | 75 | | | | |
| 137 | | aaa | acc | | act | att | tac | ccq | gat | qqc | cqq | ttt | qqq | aac | caq | atq | qqa | 290 |
| 138 | | | | | | | | | Asp | | | | | | | | | |
| 139 | | _ | 80 | - | | | - | 85 | • | • | | | 90 | | | | - | |
| 140 | | caq | tat | qcc | acq | ctq | ctq | qcc | ctg | qcq | caq | ctc | aac | qqc | cqc | caq | gcc | 338 |
| 141 | | - | | _ | _ | _ | _ | - | Leu | - | | | | | _ | | | |
| 142 | | 95 | • | | | | 100 | | | | | 105 | | • | | | 110 | |
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| 147 | | | | | | | | | Glu | | | | | | | | | |
| 148 | | | 200 | | 130 | | | | | 135 | | 5 | | | 140 | | 5 | |
| 149 | | σασ | cta | σασ | | cac | gac | t.aa | atg | | σασ | gat. | tat. | αcc | | t.t.a | aaσ | 482 |
| 150 | | | | | | | | | Met | | | | | | | | | |
| 151 | | | | 145 | | | F | P | 150 | | | E | - 1 - | 155 | | | | |
| 152 | | σασ | ccc | | ct.a | aaσ | ct.c | acc | ggc | ttc | ccc | tac | tcc | | acc | ttc | ttc | 530 |
| 153 | | | | | | | | | Gly | | | | | | | | | |
| 154 | | J_4 | 160 | | | -10 | ~ | 165 | 1 | | | -1- | 170 | r | | | | |
| 155 | • | cac | | ctc | cαα | σασ | caσ | | cgc | aσc | σασ | ttc | | cta | cac | gac | cac | 578 |
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| 156 157 | * | His 175 | His | Leu | Arg | Glu | Gln 180 | Ile | Arg | Ser | Glu | Phe 185 | Thr | Leu | His | Asp | His 190 | |
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| 162 | | Thr | Gly | Asp | Arg | Pro | Ser | Thr | Phe | Val | Gly | Val | His | Val | Arg | Arg | Gly | |
| 163 | | | | | 210 | | | | | 215 | | | | | 220 | | | |
| 164 | | | | | | | | | | | | aag | | | | | | 722 |
| 165 | | Asp | Tyr | | Arg | Val | Met | Pro | _ | Arg | \mathtt{Trp} | Lys | Gly | | Val | Gly | Asp | |
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| 167 | | | | | | | | | | | | ttc | | | | | | 770 |
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| 170 | | | | | | | | | | | | atg | | | | | | 818 |
| 171 | | | Pro | vaı | Phe | val | | Thr | ser | Asn | GIY | Met | Giu | Trp | Cys | Arg | | |
| 172 | | 255 | | | | + | 260 | ~~~ | ~~~ | ~+~ | a + a | 265 | ~~t | ~~~ | ~~+ | ~~~ | 270 | 066 |
| 173 | | | | | | | | | | | | ttt | | | | | | 866 |
| 174 | | ASII | TTE | ASP | THE | 275 | Arg | GTA | ASP | Val | 280 | Phe | Ата | СТУ | ASP | 285 | AIG | |
| 175 176 | | ~~~ | ~~~ | aca | 000 | | a a a | a a c | +++ | aca | | ctg | ata | cad | tac | | Cac | 914 |
| 177 | | | | | | | | | | | | Leu | | | | | | 714 |
| 178 | | GIU | Ala | АТа | 290 | Ата | MIG | rsb | FIIC | 295 | пец | Leu. | Val | GIII | 300 | No!! | 1172 | |
| 179 | | 200 | atc | atσ | | att | aac | acc | ttc | - | ttc | tgg | acc | acc | | cta | act' | 962 |
| 180 | | | | _ | | | | | | | | Trp | _ | _ | | - | - | J 0 2 |
| 181 | | * **** | 110 | 305 | | 110 | | | 310 | | | | | 315 | -1- | | 1114 | |
| 182 | | aat. | σσα | | acc | atc | tac | ttσ | | aac | ttc | acc | cta | | act | tcc | agc | 1010 |
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| 184 | | 1 | 320 | | | | 2 - | 325 | | | | | 330 | | | | | |
| 185 | | ttc | ctq | aaq | atc | ttt | aaa | ccc | gag | gct | gcc | ttc | ctq | ccc | gag | tgg | gtg | 1058 |
| 186 | | | | | | | | | | | | Phe | | | | | | |
| 187 | | 335 | | _ | | | 340 | | | | | 345 | | | | | 350 | |
| 188 | | | | | | | | | | | | atg | | | | | | 1103 |
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| | <213> | | | | | ıe | | | | | | | | | | | | |
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| 201 | | 1 | 37 3 | T | n 1 - | 5 | T1 - | րե - | nk - | T | 10 | 37-3 | m | Cl - | 7 ~~ | 15 | Dhe | |
| 202 | | cys | vaı | ьeu | | ата | | | ьие | | | Val | TAL | GTU | ASP 30 | ьeu | rue . | |
| 203 | | M | Com | c1 | 20 | 7 ~~ | T 011 | | λ Ι~ | 25. | | Dro | λας | uic | | 17=1 | Val | |
| 204 205 | | TAL | ser | 35 | ьeu | ASP | ьeu | ьeu | 40 | ьeu | СУБ | Pro | чэh | 45 | ASII | val | Val | |
| 2 V J | | | | J J | | | | | 4 U | | | | | -± J | | | | |



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| 206 207 | Ser | 50 | | | | | 55 | | | | | 60 | | | | |
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| 212 213 | Ala | Thr: | Leu | Leu 100 | Ala | Leu | Ala | Gln | Leu 105 | Asn | Gly | Arg | Gln | Ala 110 | Phe | Ile |
| 214 215 | Gln | Pro | Ala 115 | Met | His | Ala | Val | Leu 120 | Ala | Pro | Val | Phe | Arg 125 | Ile | Thr | Leu |
| 216 217 | Pro | Val 130 | Leu | Ala | Pro | Glu | Val 135 | Asp | Arg | His | Ala | Pro 140 | Trp | Arg | Glu | Leu |
| 218 219 | Glu : 145 | Leu | His | Asp | Trp | Met 150 | Ser | Glu | Asp | Tyr | Ala 155 | His | Leu | Lys | Glu | Pro 160 |
| 220 221 | Trp | Leu | Lys | Leu | Thr 165 | Gly | Phe | Pro | Cys | Ser 170 | Trp | Thr | Phe | Phe | His 175 | His |
| 222 223 | Leu | Arg | | | | Arg | | | Phe 185 | Thr | Leu | His | Asp | His 190 | Leu | Arg |
| 224 225 | Gln | Glu | Ala 195 | Gln | Gly | Val | Leu | Ser 200 | Gln | Phe | Arg | Leu | Pro 205 | Arg | Thr | Gly |
| 226 227 | Asp | Arg 210 | Pro | Ser | Thr | Phe | Val 215 | Gly | Val | His | Val | Arg 220 | Arg | Gly | Asp | Tyr |
| 228 229 | Leu 2 225 | Arg | Val | Met | Pro | Lys 230 | Arg | Trp | Lys | Gly | Val 235 | Val | Gly | Asp | Gly | Arg 240 |
| 230 231 | Tyr | Leu | Gln | Gln | Ala 245 | Met | Asp | Trp | Phe | Arg 250 | Ala | Arg | Tyr | Glu | Ala 255 | Pro |
| 232 233 | Val į | Phe | Val | Val 260 | Thr | Ser | Asn | Gly | Met 265 | Glu | Trp | Cys | Arg | Lys 270 | Asn | Ile |
| 234 235 | Asp ' | Thr | Ser 275 | Arg | Gly | Asp | Val | Ile 280 | Phe | Ala | Gly | Asp | Gly 285 | Arg | Glu | Ala |
| 236 237 | Ala | Pro 290 | Ala | Arg | Asp | Phe | Ala 295 | | Leu | Val | Gln | Cys 300 | Asn | His | Thr | Ile |
| 238 239 | Met 5 | | Ile | Gly | Thr | Phe 310 | Gly | Phe | Trp | Ala | Ala 315 | Tyr | Leu | Ala | Gly | Gly 320 |
| 240 241 | Asp ' | Thr | Ile | Tyr | Leu 325 | | Asn | Phe | Thr | Leu 330 | | Thr | Ser | Ser | Phe 335 | |
| 242 243 | Lys | Ile | Phe | Lys 340 | | Glu | Ala | Ala | Phe | | Pro | Glu | Trp | Val 350 | | Ile |
| 244 245 | Asn i | | Asp 355 | | Ser | Pro | Leu | Gln 360 | | Leu | Ala | Gly | Pro 365 | 230 | , | |

VERIFICATION SUMMARY
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